REMARKS

Claims 4, 16, 20 and 27-56 are pending in the application. Claims 27-54 are withdrawn from consideration as being directed to non-elected inventions. Claims 55 and 56 are canceled herein without prejudice or disclaimer. Claims 4 and 16 are amended herein for clarity to more particularly define the invention. In addition, new claims 57-60 are added herein. Support for these amendments and new claims is found in the language of the original claims and throughout the specification, at least, for example, in original claims 10, 11, 31 and 39; on page 4, lines 4-8; on page 5, lines 1-9, 18-26; on page 20, lines 22-23; and on page 30, lines 23-26. It is believed that no new matter is added by these amendments and new claims and their entry and consideration are respectfully requested. In light of these amendments and the following remarks, applicants respectfully request reconsideration of this application and allowance of the pending claims to issue.

I. Interview Summary.

Applicants wish to express their appreciation for the time and courtesy extended by Examiner Woitach toward applicants' representative, Alice Bonnen, during the telephonic interview on April 23, 2008. During the course of the interview, the written description rejections raised in the Office Action dated December 31, 2007 were discussed. Examiner Woitach indicated that in view of the new Written Description Training Materials published by the U.S. Patent Office (March 25, 2008) these rejections may be overcome by removing the recitation to "functional." We also briefly discussed a publication (Moore et al., discussed below) that describes functions associated with the structures of the nucleic acids of the present invention.

II. Rejection under 35 U.S.C. § 112; Enablement and Written Description.

A. The Action states that claims 55 and 56 are rejected as allegedly failing to comply with the written description requirement. Specifically, the Action states that new claims 55 and 56 require that the CATERPILLER 11.3 polypeptide or fragment inhibit NF-κB function while the specification discloses that the polypeptide inhibits induction of NF-κB gene mediated by other proteins.

Claims 55 and 56 are canceled herein without prejudice or disclaimer merely to expedite the prosecution of this application in accordance with USPTO business goals thereby mooting this rejection. Accordingly, applicants respectfully request its withdrawal.

B. The Action states that claims 4, 16, 20, 55 and 56 stand rejected as allegedly failing to comply with the written description requirement. Specifically, the Action states that while being enabled for an isolated nucleic acid encoding the polypeptide of SEQ ID NO:18 or amino acids 1-921 of SEQ ID NO:20, the specification does not reasonably provide enablement for any other CATERPILLER 11.3 polypeptide or any functional fragment of a CATERPILLER 11.3 polypeptide. The Action further states that while the written description and enablement requirements are separate and generally separable requirements, the instant application fails to meet either requirement for essentially the same reasons.

As noted above, claims 55 and 56 are canceled herein without prejudice. Therefore, the rejection as it pertains to these claims is moot.

Claim 4 is amended herein to recite an isolated nucleic acid encoding a CATERPILLER 11.3 polypeptide, said isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of: (a) the nucleotide sequence of SEQ ID NO:17 or SEQ ID NO:19; (b) a nucleotide sequence having at least 95% sequence similarity to SEQ ID NO:19; and (c) a nucleotide sequence that differs from the nucleotide sequences of (a) or (b) above due to the degeneracy of the genetic code.

Claim 16 is amended herein to recite an isolated nucleic acid encoding a fragment of a CATERPILLER 11.3 polypeptide selected from the group consisting of: (a) a fragment comprising at least a nucleotide binding domain and/or a leucine-rich repeat of the polypeptide sequence of SEQ ID NO:20; (b) a fragment of an amino acid sequence having at least 95% sequence similarity to (a); (c) a fragment comprising at least a nucleotide binding domain and/or a leucine-rich repeat

encoded by the nucleotide sequence of SEQ ID NO:19; and (d) a fragment encoded by a nucleotide acid sequence having at least 95% sequence similarity to (c).

Further, as discussed during the telephonic interview, applicants note that the nucleotide binding domain and the leucine-rich repeats of the CATERPILLER 11.3 polypeptide (now called NLRX1) are involved in the interaction of CATERPILLER 11.3 polypeptides with mitochondrial antiviral signaling adapter MAVS during viral infection (*See,* Moore et al., Nature 451:573-577 (2008); copy enclosed).

Accordingly, applicants have amended the claims of the present application to clarify and further define the nucleotide and polypeptide sequences of the invention and fragments thereof. Applicants note for the record that these amendments are not narrowing in effect. Thus, in view of the amendments presented herein applicants submit that claims of the present invention comply with both the written description and enablement requirements and respectfully request withdrawal of the rejection.

III. Rejection under 35 U.S.C. § 102(b).

The Action states that claims 4, 16 and 20 stand rejected as allegedly being anticipated by Conklin (WO 01/04307).

Claim 4 is amended herein to recite an isolated nucleic acid encoding a CATERPILLER 11.3 polypeptide comprising a nucleotide sequence selected from the group consisting of: (a) the nucleotide sequence of SEQ ID NO:17 or SEQ ID NO:19; (b) a nucleotide sequence having at least 95% sequence similarity to SEQ ID NO:19; and (c) a nucleotide sequence that differs from the nucleotide sequences of (a) or (b) above due to the degeneracy of the genetic code.

Further, as discussed above, claim 16 is amended herein to recite an isolated nucleic acid encoding a fragment of a CATERPILLER 11.3 polypeptide selected from the group consisting of: (a) a fragment comprising at least a nucleotide binding domain and/or a leucine-rich repeat of the polypeptide sequence of SEQ ID NO:20;

(b) a fragment of an amino acid sequence having at least 95% sequence similarity to (a); (c) a fragment comprising at least a nucleotide binding domain and/or a leucine-rich repeat encoded by the nucleotide sequence of SEQ ID NO:19; and (d) a fragment encoded by a nucleotide acid sequence having at least 95% sequence similarity to (c).

Conklin fails to describe, expressly or inherently, the nucleotide sequence of SEQ ID NO:17 or 19, nucleotide sequences having at least 95% sequence similarity to the SEQ ID NO:19 and/or a nucleotide sequence that differs from the nucleotide sequences of SEQ ID NO:17 or 19 or nucleotide sequences having at least 95% sequence similarity to the SEQ ID NO:19 due to the degeneracy of the genetic code as claimed by the present invention.

Further Conklin fails to describe, expressly or inherently, fragments of a CATERPILLER 11.3 polypeptide comprising at least a nucleotide binding domain and/or a leucine rich repeat of SEQ ID NO:19 or 20 or fragments of these sequences having 95% sequence similarity thereof.

Thus, the requirements for anticipation under 35 U.S.C. § 102(b) are not met by the disclosure of Conklin and claims 4, 16 and 20 are not anticipated by this reference. For these reasons, applicants believe this rejection has been rendered moot and respectfully request its withdrawal and allowance of the pending claims to issue

IV. New Claims.

New claims 57-60 are added herein. Support for these claims can be found in the language of the original claims and throughout the specification, as set forth above. Thus, no new matter is added by entry of these new claims. Further, these claims are free of the pending rejections for the same reasons set forth above with respect to claims 4, 16 and 20 and their entry and allowance are respectfully requested.

V. Rejoinder.

Claims 27-54 and new claims 59 and 60 as presented herein include all of the recitations of product claim 4 or product claim 16. Thus, if it is determined that the products of claim 4 and/or claim 16 are allowable, applicants request review and examination of these method claims in the present application, pursuant to the practice of rejoinder as set forth in section 821.04 of the MPEP. In particular, it is stated therein that if a product claim is elected in a restriction and then found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim are to be rejoined.

Having addressed all of the issues raised by the Examiner in the pending Office Action, applicants believe that the claims as presented herein are in condition for allowance, which action is respectfully requested. The Examiner is invited and encouraged to contact the undersigned directly if such contact will expedite the prosecution of the pending claims to issue.

The Commissioner is authorized to charge Deposit Account No. 50-0220 in the amount of $60.00 as the fee for a one-month extension of time (small entity). This amount is believed to be correct. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

Alice M. Bonnen
Registration No.: 57,154

Customer Number 20792
Myers Bigel Sibley & Sajovec, P.A.
P.O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401

CERTIFICATION OF ELECTRONIC TRANSMISSION
I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on April 28, 2008.

Claire Wimberly